



CULTURAL RESOURCE MONITORING PLAN RTA2 REMEDIATION GOWANUS CANAL SUPERFUND SITE BOROUGH OF BROOKLYN, NEW YORK

June, 2024



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Table of Contents

1.0	INT	RODUCI	ION	1	
2.0	SCO	PE OF V	VORK	3	
	2.1	Area o	f Potential Effect (APE)	4	
3.0	PRE	VIOUS II	NVESTIGATIONS, SENSITIVITY AND KNOWN AND POTENTIAL RESOUR	RCES4	
4.0	ARC	HAEOLO	OGICAL MONITORING	7	
	4.1 Training On-Site Personnel				
	4.2		ions of Finds		
		4.2.1	Artifacts		
		4.2.2	Objects of Local Interest	8	
		4.2.3	Items for Discard	8	
	4.3	Archae	eological Monitoring Protocol	9	
		4.3.1	Level 1 Monitoring	9	
		4.3.2	Level 2 Monitoring	9	
	4.4		e Sediment and Soil Screening		
	4.5	Debris	Removal in Water or on Land		
		4.5.1	Monitoring Debris Removal on Land		
		4.5.2	Monitoring Debris Removal on Water		
	4.6 Sediment and Soil Removal				
		4.6.1	Monitoring Sediment and Soil Removal on Land		
		4.6.2	Monitoring Sediment and Soil Removal on Water		
	4.7 Site-Specific Monitoring Plans and Other Cultural Resource Investigations				
	4.8	· · · · · · · · · · · · · · · · · · ·			
	4.9 Disturbance or Removal of Historic Properties				
	4.10		nent of Finds		
			Artifacts/Objects of Local Interest to be Discarded		
			Artifacts/Objects of Local Interest to be Retained		
			Treatment of Objects of Local Interest		
			Treatment of Objects of Local Interest Curation of Artifacts		
	111		nent of Human Remains		
	4.11 Treatment of Human Remains				
	4.12	•	Weekly Reporting		
			End of Field Work Summary Report		
			Final Monitoring Report		
	4.13		and Safety		
5.0	PROJECT MANAGEMENT				
	5.1 Timeline				
	5.2	Resources			
	5.3		t Coordination		
6.0		•	S		

Attachment 1 RTA2 APE Map

Attachment 2 Cultural Resource Map

Appendix A Human Remains Discovery Protocol (August 2018)

1.0 INTRODUCTION

This Cultural Resources Monitoring Plan (CRMP) for Remediation Target Area 2 (RTA2) of the Gowanus Canal Superfund Site (Site) describes the protocols that Chronicle Heritage will employ to recover archaeological information during remediation activities. The project area for RTA2 is located within the Gowanus Canal (Canal) between the 3rd Street Bridge and Hamilton Avenue Bridge and associated ground-disturbing activities in the Borough of Brooklyn, New York, as shown on the Area of Potential Effect (APE) map (Attachment 1).

The term "cultural resource" is not defined in the National Environmental Policy Act (NEPA) or any other federal law. However, Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, requires federal agencies to consider the effects on historic properties of projects they carry out, assist, fund, permit, license, or approve throughout the country. Further, 36 CFR Part 800 (Protection of Historic Properties), as amended, the implementing regulations for Section 106, defines "Historic property" as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria."

For New York State, the New York State Historic Preservation Act of 1980 (SHPA) was established as a counterpart to the NHPA and declares historic preservation to be the public policy and in the public interest of the state. Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law Part 426.2, the implementing regulations for SHPA, defines a Historic Place or Property as "any building, structure, district, area, site or object, including underground and underwater sites, that is of significance in the history, architecture, archaeology or culture of the State, its communities or the nation." The important distinctions in these definitions of historic property are "in, or eligible for inclusion in," the National Register in the former, and "of significance" in the latter.

The term "cultural resources" is a more generic term that embraces these definitions. Cultural resources are nonrenewable and can yield unique information about past societies and environments with implications for modern issues. They include sites, districts, buildings, structures, and objects relevant to American history, architecture, archaeology, engineering, and culture. However, while objects recovered from an archaeological investigation may be considered generally cultural resources, not all cultural resources or recovered objects meet the criteria to be considered historic properties eligible for listing on the State or National Registers of Historic Places (36 CFR Part 60). If an object does not meet these criteria, and, therefore, is neither eligible for the National Register nor significant, the object is not considered a historic property under the law, and any effects to it do not need to be considered. As a result, these recovered objects do not need to be preserved. The terms "cultural resource," "historic resource," and "historic property" are frequently incorrectly used interchangeably.

The Canal is a brackish, tidal arm of the New York–New Jersey Harbor Estuary, extending for approximately 1.8 miles though Brooklyn, New York. The approximately 100-foot-wide Canal runs southwest from Butler Street to Gowanus Bay and includes several turning basins (TBs) in addition to the main canal. The Canal's four short turning basins branch to the east of the main channel at 4th Street (TB4), 6th Street (TB6), 7th Street (TB7), and 11th Street (TB11). In addition, former turning basins located on the east side of the Canal at 1st Street (TB1) and east of 3rd Street bridge (TB5) have been filled in. RTA2 includes existing turning basins: TB4, TB6, TB7, and TB11. The adjacent waterfront is primarily commercial and industrial, including concrete plants, warehouses, and parking lots. Several residential neighborhoods and a few municipal facilities and residential buildings adjoin the Canal.

Remediation work is being performed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) administered by the United States Environmental Protection Agency (EPA). EPA is also the lead federal agency implementing Section 106 of the NHPA and New York State Historic Preservation Office (SHPO) requirements, which are outlined in the May 12, 2023, Programmatic Agreement (Programmatic Agreement) for this project, which forms the basis of requirements for this CRMP.

This CRMP builds on the October 2022 RTA1 Cultural Resources Monitoring Plan prepared by Archaeology & Historic Resource Services, LLC (October 2022 CRMP). The October 2022 CRMP outlines the basic protocol to be implemented for cultural resources (i.e., historic and archaeological resources) encountered or anticipated during the archaeological monitoring for the dredging, excavation, and debris removal activities related to the remediation efforts at the Site. In this context, cultural resources are considered "the collective evidence of the past activities and accomplishments of people. They include buildings, objects, features, locations, and structures with scientific, historic, and cultural value" (New York Archaeological Council Standards, p.19). Cultural resources also help to contribute to the scientific interpretation of an archaeological area/property by contributing to its significance and integrity under the NHPA (ACHP Archaeology Guidance, p 2). However, as noted, all cultural resources do not necessarily meet the evaluation criteria to be eligible for listing to the National Register. Those cultural resources that do not meet the eligibility threshold, although they may hold some local importance, are not eligible for the listing to the National Register and do not require the same level of preservation, if any. This and any site-specific protocols proposed under the EPA mandate will need to be reviewed and approved by the EPA and the New York State Office of Parks Recreation and Historic Preservation (OPRHP aka SHPO) prior to implementation as per Section 106 of the NHPA.

Activities that could require archaeological monitoring are those with the potential to impact archaeologically sensitive soils or structures located along the waterward side of the Canal, portions of the Canal that have been filled in and will be restored, any areas of ground disturbance on the landward side of the bulkhead walls of properties if included in the APE, and potential staging areas for heavy equipment and/or soil stockpiles not on previously hard-packed surfaces within the Gowanus Canal Historic District Boundary. The current staging area is located at 659 Smith St, Brooklyn, New York, which has been previously investigated. This CRMP sets

forth a general protocol for the RTA2 remediation. Site-specific monitoring plans may need to be created based on this CRMP.

For more detail on the history of the Canal and its uses, see the *National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal* by Hunter Research (Hunter Research, 2004) and the *Archaeological Sensitivity Study; Gowanus Canal* (Lee et al., 2011). The period of significance associated with the Canal relates to its design and construction and its association with the industrial nature of the area from 1853 to 1965 (Hunter Research, 2004).

All work will be conducted in accordance with the Secretary of the Interior (SOI) Standards and Guidelines for Archaeology and Historic Preservation 1983; as amended, Section 106 of the National Historic Preservation Act; New York State Historic Preservation Act of 1980, Section 14.09, the New York Archaeological Council's Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State (1994) and the Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques (adopted by the New York Archaeological Council 2002). Qualified archaeologists who meet or exceed the SOI Professional Qualifications Standards published in the Code of Federal Regulations (36 CFR Part 61) will conduct or oversee the archaeological monitoring.

2.0 SCOPE OF WORK

In accordance with the September 2013 Record of Decision (ROD) for the Site, certain remediation efforts (i.e., ground-disturbing activity) within the APE with the potential to affect cultural resources are subject to archaeological monitoring. The goal of archaeological monitoring is to avoid or mitigate effects to cultural resources within the APE, as described below.

The current RTA2 remediation work consists of installation of bulkhead supports (i.e., sheet pile walls with tieback anchors or cantilevered pipe pile walls; other types of potential support construction will be addressed later), dredging of recently deposited soft sediment and some underlying alluvial sediment and glacial sands, in-situ stabilization of sediments in select areas via in-situ mixing with a cement-based reagent, and placement of an environmental cap. In addition, the Smith Street staging area is located on a paved street in the APE, but no excavation is anticipated in this area.

Dredging will be conducted within the Canal from 3rd Street to Hamilton Street extending from bank to bank. The dredging depth extends to depths of up to approximately 15 feet below the current bathymetry. In select areas, the upper one to two feet of the native sediment will also be removed to accommodate infrastructure around the Canal. The dredging will be conducted in three phases:

- Phase I -- Dredging will be conducted to create navigational access for bulkhead support installation and other activities along the Canal;
- Phase II -- Dredging will be conducted to remove soft sediment to the pre-In Situ Stabilization (ISS) elevation; and
- Phase III -- Dredging will be conducted after ISS to remove the remainder of soft sediment and some native sediment as required per the design.

Dredging will be conducted via mechanical means with sediment dredged via a bucket, placed in a scow, and transported to a processing facility (e.g., Clean Earth Facility in Jersey City, NJ, or others) for stabilization prior to end disposal. Preceding work includes the installation of bulkhead supports, some of which may need tiebacks or deadman anchors, if they are used. The installation of these tiebacks would require upland excavation and may trigger additional monitoring (described in Section 4.0 below) and would be addressed once identified as part of the project.

2.1 Area of Potential Effect (APE)

The APE includes any location where ground-disturbing, staging or other project-related activities will be conducted as a part of RTA2 remediation. The APE includes the area to be dredged between the bulkhead walls in the Canal (Attachment 1). The adjacent staging area at 595 Smith Street is outside the APE. Areas of known cultural resources are discussed in Section 3.0. As the project progresses, the APE may need to be adjusted in areas to accommodate unforeseen project needs.

3.0 PREVIOUS INVESTIGATIONS, SENSITIVITY, AND KNOWN AND POTENTIAL RESOURCES

Three previous cultural resource studies have been conducted for the Canal. They include: the National Register of Historic Places Eligibility Evaluation and Cultural Resources Assessment for the Gowanus Canal by Hunter Research, Raber Associates and Northern Ecological Associates, Inc. (Hunter Research, 2004), which defined the extents of the potential historic district that was determined eligible for the National Register of Historic Places (NRHP) by SHPO in 2006; Gowanus Canal Preliminary Bulkhead Study (McVarish, 2010) and Side Scan Sonar Report (Cox, 2010), which identified possible historic bulkheads and submerged cultural resources in the Canal; and the Archaeological Sensitivity Study; Gowanus Canal (Lee et al., 2011), which identified areas of archaeological sensitivity for the Canal and adjacent areas. Surveys conducted within a half-mile of the project area are summarized in Table 1.

Table 1. Archaeological surveys within one half mile (0.8 km) of the project area (ORPHP CRIS 2023).

Survey Number	Name	
02SR52891	Stage 1B Field Investigation, Hoyt-Schermerhorn, Blocks 170, 171,	
023N32891	AND 176, Brooklyn, New York	
01SR51651	Preliminary Archaeological Assessment, Hoyt-Schermerhorn Site,	
013K31631	Brooklyn, New York	

Survey Number	Name
01SR52072	Stage 1A Archaeological Assessment, Blocks 170 and 171, Hoyt-
0131(32072	Schermerhorn Site, Brooklyn, New York
	Draft Report, National Register of Historic Places Eligibility Evaluation
04SR54640	and Cultural Resources Assessment for the Gowanus Canal, Borough
0.10.10.10	of Brooklyn, Kings County, New York in Connection with the Proposed
	Ecosystem Restoration Study
	Submerged Cultural Resources Review of Background Research and
08SR59099	Geophysical Data for the Bayonne Energy Center Project, New York
	Harbor, Bayonne, Hudson County, New Jersey and Brooklyn, Kings
	County, New York (includes 10/9/2008 addendum)
11SR61194	Archaeological Sensitivity Study, Gowanus Canal, Brooklyn Borough,
	City of New York, Kings County, New York
	Gowanus Canal Bulkhead and Cribbing Documentation at Carroll
13SR62278	Gardens, 365 Bond Street and 400 Carroll Street, Brooklyn, Kings
	County, New York
14SR62743	Gowanus Canal Bulkhead and Cribbing Documentation at Benson
	Scrap Metal, Brooklyn, Kings County, New York
455000720	Phase IA Archaeological Documentary Study Gowanus Canal Area
15SR00739	Phase II High Level Storm Sewer and Water Main Replacement
	Brooklyn, Kings County, New York Identification and Historical Assessment of "TARGET 31a" 4 th Street
16SR00290	
	Basin Gowanus Canal Superfund Site Brooklyn, New York Draft
16SR00381	Phase 1A Archaeological Documentary Study: Proposed Pre- Kindergarten Center, 168 8th Street, Brooklyn, Kings County, New
103000381	York,
	Gowanus Houses (Block 404 Lot 1) Brooklyn Phase 1A Archaeological
17SR00014	Assessment
475000427	
17SR00137	9th Street Infrastructure Improvements
17SR00420	NYCHA Gowanus Houses (Block 404 Lot 1) Brooklyn, Phase IB
1731100-120	Archaeological Testing
	Proposed Pre-Kindergarten Center, 168 8th Street (Block 1003, Lot
18SR56192	11); Brooklyn, Kings County, New York; Final Archaeological Technical
	Report: Phase 1B Investigation and Phase 2 Evaluation
18SR56607	Phase 1A Archaeological
19SR00204	Summary Geoarchaeological Assessment
	Assessment of the historic/ archaeological integrity of the Citizens
19SR00317	Gate Station Gowanus Bulkhead, Sixth Street, Block 990, Lot 138,
	Brooklyn, New York
	Hera Power –Link - Terrestrial Preferred Route (to Gowanus
23SR00365	Substation) and Alternate Route (to BCEH) Phase IA Archaeological
2331.00303	Assessment 42nd St/1st Avenue to Gold/John Street via Multiple
	Roads, Brooklyn Borough (Kings County, New York

Known and potential cultural resources identified in these surveys are depicted on the Cultural Resource map (Attachment 2). Additional cultural resources may be encountered during the project. Any recovered object that may potentially meet the NRHP eligibility standards to qualify as a historic property found during the project will be reviewed by a Chronicle Heritage

archaeologist to determine if it qualifies as a "cultural resource" or not in accordance with this CRMP (see Section 4.2). Findings will be submitted to EPA for review by EPA's consulting archeologist. EPA will consult with SHPO and the community, as appropriate, regarding disposition of materials that are retained. Any project-related debris removal, excavation/dredging or staging activities not on previously hard pack surfaces in or adjacent to these known or potential resources will be archaeologically monitored as needed.

Indigenous American Archaeological Sensitivity

According to the New York State Cultural Resource Information System (CRIS), the portion of the Canal in RTA1 north of Sackett Street is considered archaeologically sensitive. However, the *Archaeological Sensitivity Study; Gowanus Canal* (Lee et al., 2011) did not indicate RTA2 areas with the potential to contain Indigenous American archaeological sites.

Euro-American Archaeological Sensitivity

According to the *Archaeological Sensitivity Study; Gowanus Canal* (Lee et al., 2011), "Of greater certainty are the survival of archaeological resources associated with the Canal itself and the industries that grew beside it in the mid- to late-19th century and first half of the 20th century. The canal and its basins include over two miles of cribwork bulkheads that have been identified as part of the canal's historic fabric and are likely to contain important information about the canal's design and construction."

Based on the Lee et al., 2011, study there is a moderate to high potential for historic archaeological resources in the areas surrounding the Canal and a moderate to high potential for submerged archaeological resources within the limits of the Canal. In RTA2, APE there are thirteen potential archaeological features including timber remains of ships/barges, slumped canal walls, and other identified submerged resources, according to the *Side Scan Sonar Report* (Cox, 2010; see Attachment 2). In the APE for TB-4, TB-6, TB-7, and TB-11, there is a low potential for archaeological resources, with the exception of the timber bulkhead wall or any sunken barges or vessels that may be in the fill.

Below is a list of identified areas of Euro-American archaeological and potential Euro-American archaeological resources within the APE or adjacent to the APE see Attachment 2 for the location of specific structures:

- Identified resources in the APE include:
 - Historic Bulkhead and Cribbing along the Canal;
 - The 3rd Street Bridge and Operator House;
 - The Hamilton Avenue Bridge; and
 - Stirling's Avenue of Retreat during the Battle of Brooklyn in the Revolutionary War

 this area represents the routes taken by retreating American soldiers under the command of General Lord Stirling. The precise paths of the retreat are not well known, and associated artifacts (weapons, utensils, coins, buckles, buttons, saddles, etc.) and/or archaeological sites (hearths, burials, privies, etc.) from the retreating army may exist in the upland areas.

Stirling's Avenue of Retreat is only partially in the APE (the Canal). Currently, limited excavation is planned within the Canal that will extend into natural soils, so resources related to the retreat are unlikely to be impacted.

- Identified resources adjacent to the APE include:
 - Leonhard Michel Brewing Company Complex at 409-411 Bond Street;
 - o Empire City Hygeia Ice Company at 421-431 Bond Street;
 - o Knickerbocker Ice Company at 98-112 4th Street;
 - o Hochberg Bros. Schan, Inc. at 386-398 3rd Avenue;
 - o Dykes Lumber Company, Inc. at 169-175 6th Street; and
 - o The New York Tartar Company at 61 9th Street.

The APE does not overlap any of these resources. However, local upland excavation may be performed at or in proximity to some of these properties (and cribbing may be impacted). In addition, there are numerous resources that contribute to the Gowanus Canal Historic District that are not listed here as they are outside of the APE. If remedial plans change due to project needs, then archaeological monitoring, archaeological surveys, or other Site-specific activities may be necessary, as directed by the EPA.

4.0 ARCHAEOLOGICAL MONITORING

Archaeological monitoring will be conducted within the APE as described in Section 4.3 of this CRMP. Areas of archaeological monitoring will be potentially delineated by any sonar contacts that could be cultural resources in the water, the full scope of the bulkhead structure, any excavation within 10 feet of the Canal, and any equipment or supply staging areas within the APE not on previously hard-packed surfaces or previously reviewed for cultural resources. Additionally, any excavation activities (e.g., trenching) used to mitigate possible adverse effects to known historic properties may also require monitoring.

During the dredging and excavation, historic properties will be avoided to the greatest extent feasible. Historic properties include districts, areas (including archaeological areas), buildings, structures and objects that are eligible for listing or listed in the NRHP.

Archaeological monitoring of varying degrees will be required for the debris, sediment, and soil removal. Monitoring may need to be conducted on both land and in water for submerged resources that date to within the Canal's period of significance (1853 to 1965). This CRMP describes the methodology for archaeological monitoring, weekly (or as necessary), and final reporting, the treatment of finds, contingencies for unanticipated discoveries, and the planning for the curation of artifacts (if needed). If significant historic features, artifacts, or artifact concentrations are identified during monitoring, consultation among the EPA, SHPO, the remediation project team, and the Consulting Parties, as defined in the Programmatic

Agreement, will be carried out to discuss the steps to follow in accordance with the Programmatic Agreement.

In the event a potential find requires more time to investigate, an additional archaeological monitor and/or monitoring assistant will be assigned to help with the investigation. The remediation project team will notify EPA upon any encounters with unique features or similar buried structures that may require additional archaeological field staff. The EPA will determine if additional consultation is appropriate.

4.1 Training On-Site Personnel

As part of the archaeological monitoring, Chronicle Heritage will conduct training briefings on the identification of potential cultural resources for the remediation contractor staff engaged in excavation/dredging activities and any other relevant personnel working on material and sediment removal. The intent of this training is to assist non-archaeological staff in identifying potential cultural resources during monitoring and to provide an understanding of their importance. The training will also convey the protocol to be followed in the event any potential cultural resources are encountered during remediation activities and monitoring.

4.2 Definitions of Finds

The following definitions will be used by the Chronicle Heritage archaeologist/archaeological monitor to establish whether a found object/cultural resource is an artifact, object of local interest, or item for discard.

4.2.1 Artifacts

Artifacts are defined as meeting all the following criteria:

- Identifiable by type, function, material, and time period;
- Has an identifiable association with a specific building, site, event, or person along the Canal during the Canal's period of significance (1853 to 1965); and
- Confirms previously unconfirmed archival information along the Canal or reveals new information that changes our understanding of the history/development of the area.

4.2.2 Objects of Local Interest

Objects of Local Interest are defined as meeting all the following criteria:

- Identifiable by type, function, material, and/or time period;
- Has a general association with the area, but not with a specific site, event, or person along the Canal during the Canal's period of significance (1853 to 1965); and
- Does not confirm previously unconfirmed archival information along the Canal or reveal new facts that changes our understanding of the history of the area.

4.2.3 Item for Discard

Item for Discard is defined as any other item recovered from excavation/dredging, including unidentifiable objects, objects with no apparent association with the local area, construction debris, objects made after 1965, or natural items (such as trees, brush, rocks, etc.).

4.3 Archaeological Monitoring Protocol

Potential cultural resources can be Indigenous American (stone tools, pottery, animal remains, fire-cracked rock, etc.) or Euro-American (stone or brick foundations, structures, metal tools, weapons [bayonets, pistols, swords, rifles], ceramics [plates, cups, jars], glass bottles and jars, leather products [shoes, jackets, saddles], kitchen implements, building materials, etc.).

The archaeological monitoring of debris, sediment, and soil removal, both on land and in the water, will be carried-out at one of two levels: Level 1 Monitoring or Level 2 Monitoring.

4.3.1 Level 1 Monitoring

Level 1 monitoring for the dredging of soils and sediment within the APE will be conducted by remediation contractor staff trained in general archaeological protocols and recognition of potential resources noted in Section 4.1. Areas of Level 1 monitoring include any dredging in the existing canal that does not extend into the native alluvial soils or is not within 25 feet of any previously identified sonar targets. Level 1 monitoring includes the areas identified for the Stirling's Avenue of Retreat during the Revolutionary War in the Canal, unless it extends into native alluvial soils or is within 25 feet of any previously identified sonar targets. In areas where no cultural resources are anticipated, field monitoring will follow the Level 1 protocol.

Each machine operator or other designated trained individual will monitor his/her machine or the machine assigned to him/her for monitoring purposes. Dredged and excavated soils removed from the Canal will be loaded into scows, transloaded into larger barges, and taken to the processing facility for screening on the land for sorting and photographing. If the remediation contractor identifies any potential cultural materials during debris, soil or sediment removal, the remediation contractor will place the object in a part of the scow where it will not be damaged so that it can be removed and photographed at the off-Site screening location.

In the event portions of a vessel or other large features are encountered during debris, soil, or sediment removal during Level 1 monitoring; Chronicle Heritage should be contacted immediately to assess whether the unanticipated discovery protocol in Section 4.7 should be followed. The remediation contractor will note the location and take photographs of the object.

If an unanticipated discovery occurs (such as a concentration of objects or feature) the remediation contractor staff will follow the unanticipated discovery protocol set forth in Section 4.7.

4.3.2 Level 2 Monitoring

Level 2 monitoring during debris, sediment, and soil removal will be conducted either by the Principal Investigator who meets the SOI's Professional Qualifications Standards for archaeology or by an archaeologist under the direction of the Principal Investigator. Level 2 archaeological monitoring will occur from either the barge or the shore, as appropriate. Each machine in operation will have one archaeological monitor. Level 2 monitoring is reserved for areas of excavation/dredging conducted during the dredging of native alluvial sediments, within 25 feet of any previously identified sonar targets, and upland of the Canal. Archaeological monitors will take photographs of the approximate excavation/dredging location showing the nearest built features for context before, during, and after debris, sediment, and soil removal activities. The archaeological monitor will also:

- Oversee the monitoring and ensure a professional standard of data collection and documentation;
- Recover any artifacts or objects of local interest observed and record their location (by handheld GPS, if possible); and
- Recover finds associated with cultural resource deposits which have been disturbed by the excavation during monitoring, if possible.

If structures or features of archaeological potential are observed during the debris, soil or sediment removal activities, the archeological monitor may request the machine operator to:

- Stop excavation/dredging, as necessary;
- Avoid working in the area of the potential resource; or
- Alter the way in which the machine is operated.

When a machine operator is requested to stop, the monitoring archaeologist will log the time, the action taken, and the duration of the stoppage. This log will document work stoppages and record the impact of the excavation work on potential archaeological resource(s), debris, soil, or sediment removal.

To minimize delays for the debris removal or excavation/dredging work, any identified feature will be explored by way of either small-scale exploratory hand excavation (on land only), targeted machine excavation/dredging, or possibly both. The archaeological monitor will coordinate these investigations to expedite a recommendation of NRHP eligibility to the extent practicable. If the examination reveals the object or feature to be ineligible, it will be returned to debris removal or excavation/dredging. If the archaeological monitor is on-Site and work stoppage of more than 2 hours is necessary and the archaeological monitor cannot determine the extent of the deposit or determine whether it may be archaeologically significant, work in this area will not continue until consultation with remediation project team can be undertaken in accordance with the Programmatic Agreement and dredging will move to a less sensitive area.

4.3.2.1 Project Activities in the Canal

As a result of previous dredging and removal of sediments in the 1970s, Level 2 monitoring within the Canal will only be conducted during the dredging of native alluvial sediments, and within 25 feet of any previously identified sonar targets that have not yet been removed or assessed.

4.3.2.2 Project Activities Outside the Canal

Level 2 monitoring will include any project activity excavation outside the Canal or within 25 feet of any identified submerged cultural resources of the Gowanus Canal Historic District (Attachment 2).

If Level 2 monitoring uncovers any potentially significant finds, the on-Site archaeological monitor will make any determinations of cultural value in consultation with the archaeological principal investigator, if not on-Site, and the remediation project team, if available. Off-Site screening will follow the screening protocol described in Section 4.4.

4.3.2.3 Project Activities in Staging Areas

If new staging areas are required, the archaeological monitor will identify any known cultural resources in areas identified for construction staging within the APE. Based on professional judgment, the archaeological monitor will:

- 1) work with the remediation project team to identify suitable locations for staging;
- 2) work with the remediation project team to establish a buffer zone around the potential cultural resource and enforce a "no work" zone; and
- 3) determine if archaeological monitoring is needed.

4.4 Off-Site Sediment and Soil Screening

Off-Site screening of excavated or dredged soils and sediments will be conducted at the processing facility. This screening will be conducted by remediation contractor staff trained in Level 1 archaeological monitoring protocols and recognition of potential resources. All objects, excluding items for discard, recovered each day and not easily identifiable will be segregated from the rest of the screened material. Objects not identified for segregation will be cleared for disposal. Segregated objects will be rinsed as needed, digitally photographed and posted daily on a project internet portal, file sharing website, or other appropriate website where Chronicle Heritage archaeologists will review the photographs and tentatively identify any artifacts or objects of local interest. Based on this review, objects that Chronicle Heritage archaeologists identify as potential artifacts or objects of local interest will then be washed and placed in a secure holding area until a Chronicle Heritage archaeologist can visit the holding area and establish either its cultural resource value or determine that it is an item for discard and can be discarded. Segregated material identified as items for discard will be cleared for disposal by the archaeologist.

At the end of each week or monitoring period, an archaeologist will visit the processing facility to review any tentatively identified artifacts or objects of local interest and make any recommendations for retention or disposal in a weekly or as necessary memo described in Section 4.12. If a significant number of objects are waiting for review at the processing facility, additional visits may be necessary. The reviewing archaeologist may need additional rinsing to identify and fully document objects in the holding facility. Documentation includes measurements, additional photographs, and detailed descriptions of objects.

4.5 Debris Removal in Water or on Land

4.5.1 Monitoring Debris Removal on Land

In addition to the General Monitoring Protocol described in Section 4.3, Debris Removal Activities on land should follow the applicable procedures below:

- 1. When using heavy equipment, all work will be performed from hard or firm surfaces, to the fullest extent possible, to avoid sinking into soft soils;
- 2. The remediation contractor will, to the fullest extent possible, ensure that soil disturbance is minimized when operating heavy equipment on wet soils (6 inches or less) in areas where excavation is not anticipated;
- 3. Potential resources identified by the archaeological monitor may require additional investigation (by way of small scale, exploratory hand-excavation) to identify the nature and extent of potential cultural resources.
 - a. Should an exploratory examination reveal the item to be non-archaeological, this will be documented, and the find returned for debris removal;
- 4. If intact cultural resource deposits or features are found, then hand excavation by the archaeological monitor or additional archaeologists may be needed to determine the extent of the deposits and features;
- 5. Once an initial recommendation of the potential archaeological significance is made by the archaeologist, the remediation project team will be notified.
 - a. The remediation project team will work with EPA to determine the best way to proceed, with input from Chronicle Heritage; and,
- 6. For surface grading and property cleanup, the remediation contractor will ensure, to the fullest extent possible, that grading will be limited to the area of disturbance for that specific activity and to within the shallowest 6 inches of the existing surface elevation outside the area of disturbance.

4.5.2 Monitoring Debris Removal on Water

In addition to the General Monitoring Protocol described in Section 4.3, Debris Removal Activities in the water should follow the applicable procedures below:

 The archaeological principal investigator and the archaeological monitor will compare data related to the location(s) of known submerged historic properties/objects against debris removal target locations identified by side-scan sonar data;

- 2. The archaeological monitor will utilize the side scan sonar and target evaluation reports to identify both known and unknown historic properties within the APE; and,
- 3. For unknown or unanticipated resources, additional investigation may be needed. This may be accomplished by removing relevant debris from the water for evaluation, if the deposit is small enough. For larger finds, additional side scan sonar or underwater archaeologists may be required to evaluate the potential resource to make a determination of its significance and/or National Register eligibility.

4.6 Sediment and Soil Removal

The on-Site archaeological monitoring of sediment and soil removal (on land and in the water) shall be carried out in accordance with the protocol described in Section 4.3. The same two-level approach for monitoring will be used for soil and sediment removal with trained remediation contractor staff conducting the Level 1 monitoring and Chronicle Heritage archeologists performing the Level 2 monitoring. The protocol below applies to any discoveries that could be cultural resources.

In some areas outside the Canal, the risk of encountering potential buried artifacts and objects of local interest during soil and sediment removal exists. These buried resources could be impacted by the movements of heavy machinery. Therefore, it is imperative that once an area with the potential for containing buried artifacts and objects of local interest has been confirmed, it should be subject to the following protocol:

4.6.1 Monitoring Sediment and Soil Removal on Land

In addition to the monitoring protocol described in Section 4.3, soil removal activities on land should follow the applicable procedures below:

- 1. Potentially affected areas will be appropriately fenced off by the remediation contractor and clearly marked with warning signs;
- 2. The archaeological monitor will photograph the area, and the time and dates of the photographs will be recorded;
- Features will be logged and numbered sequentially in order of their discovery by the archaeological monitor, and their extent and location surveyed (by handheld GPS if possible);
- 4. Potential resources identified by the archaeological monitor may require additional investigation (by way of small scale, exploratory hand-excavation) to identify the nature and extent of potential cultural resources.
 - Should an exploratory examination reveal the deposit or feature to be nonarchaeological, this will be documented, and the area returned for debris removal; and.
- 5. If intact archaeological deposits or features are found, then hand excavation by the archaeological monitor or additional archaeologists may be needed to determine the extent of the deposits and features.

- Once an initial determination of the archaeological significance is made by the archaeologist, the remediation project team will be notified.
- The remediation project team will work with EPA to determine the best way to proceed.

4.6.2 Monitoring Sediment and Soil Removal in Water

In addition to the monitoring protocol described in Section 4.3, soil or sediment removal activities in the water should follow the applicable procedures below:

- The archaeological principal investigator and the archaeological monitor will compare data related to the location(s) of known submerged cultural resources against sediment or soil removal target locations identified by the Side Scan Sonar Report, Gowanus Canal Brooklyn, Kings County, New York by J. Lee Cox 2010 of Dolan Research, Inc.;
- 2. If unanticipated cultural resources are identified, the monitoring plan may need to be altered to investigate or mitigate the effect of the soil or sediment removal on the cultural resource. If needed, the investigation can be completed by divers, additional side scan sonar, or other appropriate underwater archaeological techniques;
- 3. For unknown or unanticipated resources additional investigation may be needed. This may be accomplished by removing relevant debris from the water for evaluation, if the deposit is small enough. For larger finds, additional side scan sonar or underwater archaeologists may be required to evaluate the potential resource to determine its significance and/or National Register eligibility.

4.7 Site-Specific Monitoring Plans and Other Cultural Resource Investigations

In situations where the scope of work changes or deviates from that described in Section 2.0, a Site-specific monitoring plan or other cultural resource investigation may be necessary. For areas within the APE, but outside the Canal that have potential for deeply buried archaeological deposits which will be adversely impacted by remedial response actions, preliminary geoarchaeological stratigraphic investigations shall be undertaken to assess the nature and extent of such potentially culture-bearing deposits within the APE. Once an area is identified as needing an area-specific monitoring plan or other cultural resource investigation, Chronicle Heritage will notify the remediation project team which will contact EPA to determine if the scope of work can be altered to avoid or minimize potential impacts. If avoidance or minimization is not possible, consultation between EPA and the remediation project team will be needed to determine the best way to proceed. EPA will make the final decision on the necessity of the area-specific monitoring plan or other cultural resource investigation.

4.8 Unanticipated Discoveries or Unanticipated Effects Protocol

During any debris, soil, or sediment removal, an unanticipated discovery (unknown structure, vessel, foundation, shaft feature, artifact concentration) or effect (unanticipated damage to a historic property, building, structure, archaeological area, etc.) is possible. In the event of an unanticipated discovery during monitoring (Level 1 or 2), the trained remediation contractor staff

conducting monitoring, archaeological monitor, and/or the remediation contractor's representative will follow the process outlined below:

- 1. Stop construction activities within 25 feet of the discovery or unanticipated effect;
- Take all reasonable measures to avoid or minimize harm to the historic property until documentation requirements are complete by deploying traffic cones caution tape, orange snow fencing, or other protective measures designed to keep activity in the area to a minimum.;
- 3. If an archaeologist is on-Site monitoring (Level 2), they will make an initial recommendation of significance then contact the archaeological principal investigator and the remediation project team to inform them of the find;
- 4. If an archaeologist is not on-Site monitoring (Level 1), the remediation project team will contact Chronicle Heritage. The remediation project team will provide any information available (photographs, description, etc.) on the find. Chronicle Heritage will then review the information provided and attempt to make an initial recommendation of significance. Chronicle Heritage will then contact the remediation project team to inform them of the find and when an archaeologist will be on-Site to investigate;
- 5. If the discovery is on land, the remediation contractor will gently place the resources back into the general location from which they were removed and tag the location with GPS until a decision is made by the remediation project team in consultation with the EPA of how to treat the find; if the discovery occurs in water, the object should be placed in a vessel containing water and the remediation contractor will contact the Chronicle Heritage archaeologist for further evaluation of the find;
- 6. In the event an unexpected discovery or unanticipated effect is determined after retrieval of the find and the find cannot be placed back in the general location from which it was removed, further consultation with EPA may be needed, with such input from the Consulting Parties as EPA determines is appropriate.
- 7. Once on-Site, if not already present, the archaeologist will document the find as best as possible including:
 - a. GPS coordinates in decimal degrees of the find.
 - b. Photographs of the find.
 - c. A written description of the find.
- 8. If needed, the completion of an archaeological site form that will be filed with the New York State Museum and the SHPO.

The excavator/dredge will move to a different location until either the archaeologist, if off-Site, either can determine, through the information provided, that the find is not archaeologically significant, or the archaeologist arrives on-Site and completes the documentation to provide a recommendation to EPA through the remediation project team. Consultation by the remediation project team, EPA, and SHPO may be required.

While every effort will be made to minimize delays in the dredging and keep the delays to no more than two hours, an unanticipated discovery could likely be a major artifact find or deposit comprising numerous artifacts and by its nature of being unanticipated may require additional

time to review. Once on-Site, the archaeologist will record and document the findings with the assistance of the excavator/dredge under the archaeologist's observation and guidance. No one will be permitted to enter the protected zone at the find location until the archaeologist arrives on-Site. Excavation and grading cannot continue in this area until the area is released back to the excavation/dredge team.

4.9 Disturbance or Removal of Historic Properties

If it is determined that a historic property (see page 1) must be removed or may be affected by a project activity, further consultation among SHPO, EPA, and the remediation project team, as appropriate, likely will be required to complete the Section 106 review for that specific historic property. Chronicle Heritage will identify and evaluate the property to inform the consultation process. The remediation project team will not proceed with removal or disturbance of the historic property until this consultation process is completed.

4.10 Treatment of Finds

Objects from many different time periods may be recovered during the dredging activities for the project. However, not all objects will have the same level of significance or any significance. Indigenous artifacts are some of the most sought out because they can help us better understand the history of the area prior to the arrival of Europeans. However, it is unlikely that there will be Indigenous artifacts present in the APE because of the prior ground disturbance associated with the construction of the Canal and surrounding areas.

4.10.1 Artifacts/Objects of Local Interest to be Discarded

Objects that were manufactured after 1965 are outside of the period of significance of the Canal and would not provide any new information on the Canal or the activities during its period of significance. Therefore, objects manufactured post-1965 will be identified as items for discard and will be cleared for disposal. Debris and items for discard may include, modern vehicles, tires, scrap lumber, plastic containers, modern bottles, plastic sheeting, cardboard, newspapers, shopping carts, buckets, modern ceramics, kitchen items, garbage, demolition debris, aluminum cans, furniture, clothing, personnel items, unidentifiable metal, etc. All natural objects, including decaying wood from branches, trees, saturated logs, and rocks, are also considered items for discard or debris.

Artifacts or objects of local interest that date to the period of significance (1853 to 1965) associated with industrial activities in the area will most likely be contaminated and not easily decontaminated. These items could include cloth, yarn, wood, wood doors with business names on them, furniture, wagon parts, signs, other porous materials, or any other artifact that cannot be decontaminated. These artifacts or objects of local interest will be inspected and documented in the field at the screening facility. Following documentation, porous artifacts should be properly disposed of due to contamination.

4.10.2 Artifacts/Objects of Local Interest to be Retained

Artifacts and objects of local interest that should be retained include anything identifiable from the Canal's period of significance (1853 to 1965) including industrial equipment, early motor vehicles and parts, diagnostic ceramics, flatware, items from canal transportation (metal items from barges, boats and other shipping from the period of significance), nonporous personnel item (combs, jewelry, coins, belt buckles, etc.) and any other nonporous artifact determined potentially significant by the archaeologist. Non-porous artifacts that are deemed not worth curating by consultation among Chronicle Heritage, EPA, and SHPO after the completion of field investigations and laboratory analysis (if appropriate), upon approval of the legal owners (to the extent such owners can be identified), may be turned over to interested parties for display or for their collection, subject to cleaning/decontamination procedures (to be established). Items not able to be cleaned/decontaminated will not be released and will be disposed. The EPA will determine the appropriateness of releasing artifacts/objects to interested parties in consultation with the remediation project team. An agreement among interested parties (including, at a minimum the remediation project team, the legal owner, and the interested party) is recommended prior to release of objects.

4.10.3 Treatment of Artifacts

Objects that meet the definition of "artifact" in Section 4.2.1, at a minimum, will be rinsed and stored at the field storage location at 659 Smith Street, Brooklyn, NY. A conservator may be consulted regarding the appropriate treatment of any retained artifacts.

Artifacts inspected by the archaeological team will fall into two categories:

- those that can be inspected and documented at the processing facility; and
- 2. those that need to go to the archaeological lab for further analysis.

For artifacts that can be inspected and documented in the field at the processing facility, the removal of sediment or other debris will be completed using hand tools, hand sprayers, or power washers in the screening area. Artifacts will then be documented (photograph and written description) and placed in storage for future analysis, until it is determined whether the artifacts will be disposed of or will be curated at an appropriate facility.

Non-porous artifacts that require further analysis will be thoroughly rinsed prior to being transported to the lab. Consultation with a conservator may be required prior to transportation as well as to determine the best way to curate the artifact. Porous artifacts will be documented at the screening facility as best possible and disposed of.

Artifacts stored at the field storage location at 659 Smith Street, Brooklyn, NY, will be retained for up to one year after identification and documentation in Weekly Construction Progress Reports and in compliance with Federal standards (36 CFR 79: Curation of Federally Owned or Administered Archaeological Collections). Porous artifacts will be disposed of after this period. Non-porous artifacts also will be retained for a period of up to one year from

completion of the documentation, as necessary. After this time, non-porous artifacts will be prepared for curation in consultation with a conservator (see Section 4.10.5). Currently no EPA-designated facility has been identified. The archaeological monitoring staff is not responsible for the decontamination of artifacts.

4.10.4 Treatment of Objects of Local Interest

Objects of local interest, as defined in Section 4.2.2, may include non-porous objects of local interest that can potentially be turned over to interested parties for display or for their collection following cleaning (rinsing) by the remediation project team and an EPA determination regarding the appropriateness of the object's release. An agreement among interested parties will likely be required prior to release of an object. These arrangements will need to be made quickly so that the presence of numerous objects with no archaeological significance do not overwhelm the storage facility.

Objects of local interest stored at the field storage location at 659 Smith Street, Brooklyn, NY, will be retained for no longer than one year after identification and field documentation in the Weekly Construction Progress Reports. After that timeframe, if no appropriate agreement has been made with an interested party, these objects of local interest will be either disposed of properly (in consultation with EPA) or transported to an EPA-designated facility for storage, possible donation, or proper disposal as determined by EPA.

4.10.5 Curation of Artifacts

Materials recovered and records produced will be maintained until analysis is complete, and if applicable, non-porous artifacts are returned to their legal owners. It is generally understood that artifacts recovered from private land during archaeological survey and excavation during the course of Section 106 review are usually the property of the landowner, unless state or local law mandates otherwise (Advisory Council on Historic Preservation [ACHP]). Legal owners of artifacts associated with NRHP-eligible resources will be encouraged to donate the artifacts for curation. All materials designated for curation shall be curated in accordance with the provisions of 36 CFR Part 79 (Curation of Federally Owned and Administered Archaeological Collections) and in accordance with state and local guidelines, at a recognized curatorial facility identified in consultation with the SHPO and New York State Museum, with a preference for a facility in proximity to the Canal. The need for curation is currently unknown and no curation facility has been identified for this project.

4.11 Treatment of Human Remains

Human remains and items of cultural patrimony as defined by Section 3001 of the Native American Graves Protection and Repatriation Act (NAGPRA) require special consideration and care.

In the event human remains are discovered during field investigations, the SHPO's *Human Remains Discovery Protocol* (2018) will be followed (Appendix A). Human remains must be

treated with the utmost dignity and respect. If human remains are encountered, work within the immediate vicinity of the discovery will halt, the archaeological monitor will notify the principal archaeologist and the remediation project team, who will notify the EPA, the New York City Police Department (NYPD) and the New York City Office of the Chief Medical Examiner (OCME). The EPA will notify the SHPO.

The OCME will make the determination as to whether the remains are forensic (generally under 50 years in age) or archaeological (generally over 50 years in age). If a determination is made by OCME that the remains are archaeological, consultation among the EPA, SHPO, and Tribal Nations will determine the best path forward for the remains.

4.12 Reporting

Information collected during RTA2 remedial activities will be reported to EPA and its consulting archaeologist in various reports. These consist of periodic recommendation memoranda describing items reviewed at the processing facility, an End of Field Summary Report at the end of the scheduled remedial activity effort, and a final monitoring report at the end of the overall remediation project. All the reports will be submitted in electronic format to the EPA.

4.12.1 Weekly Reporting

During Level 1 monitoring, an archaeologist will be scheduled to review items for the screening at the processing facility and will maintain an internal field log for each day present. These logs will be used to prepare the weekly recommendation memo to the EPA and will include the types of materials observed from the screening activities and a description and photograph of any items recommended for retention as an artifact or object of local interest.

During Level 2 monitoring, the on-Site monitoring archaeologist will maintain a daily field log of the Level 2 monitoring documenting any observations in the field. Additional field logs will be created for each day at the processing facility, describing the types of items reviewed from screening activities, as discussed above. These combined field logs will be used to prepare the weekly recommendation memo for the EPA and will include the types of materials observed from the screening activities and a description and photographs of any items recommended for retention as an artifact or object of local interest.

4.12.2 End of Field Work Summary Report

At the end of the remedial action, an End of Field Work Summary Report will be prepared summarizing the archaeological monitoring and the results and recommendations for review and comment by the EPA and the SHPO. The End of Field Work Summary Report will consist of summaries of the field methodology, results of archaeological monitoring, a summary table of retained artifacts and objects of local interest, results of any analyses, and recommendations for NRHP eligibility for cultural resources identified during the monitoring.

The draft End of Field Work Summary Report will be submitted to the remediation project team upon completion of the field work and any needed laboratory work. The report will comply with the *SOI's Standards and Guidelines for Archaeology and Historic Preservation* (1983). The final End of Field Work Summary Report will be submitted to the remediation project team after receipt of all comments.

4.12.3 Final Monitoring Report for RTA2

Information collected during the entire monitoring effort will be analyzed and compiled into a final monitoring report in accordance with the SOI's Standards and Guidelines for Archaeology and Historic Preservation, the New York State Historic Preservation Office Phase I Archaeological Report Format Guidelines (2005) and Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques (adopted by the New York Archaeological Council 2002). The report will contain the following:

- An overview of the landscape (physical and archaeological) in which the project took place;
- A description of the monitoring protocol;
- A description of the areas for debris, sediment, and soil removal;
- The dates and duration of monitoring;
- The monitoring methodology including machinery used, and the hours worked;
- An overview of the ground, weather, and overall monitoring conditions, particularly with respect to any problems encountered;
- A description of any archaeological artifacts and features uncovered, including provenience information;
- A summary of decisions made with regard to any archaeological areas or features discovered during the work, including the cross-referencing (where available) with any official number designation to an area subsequently excavated;
- An overview (including tables) of all artifacts;
- A general statistical analysis of the artifacts identified;
- Conclusions and any recommendations;
- Bibliography and references;
- Supporting maps, plans, photographs, and illustrations; and
- Details on the location and content of the monitoring archive.

The draft report will be submitted to remediation project team. All field work and necessary laboratory work and will comply with the *SOI's Standards and Guidelines for Archaeology and Historic Preservation* (1983). The final report the addresses the comments from the draft report will be submitted to the remediation project team.

4.13 Health and Safety

Chronicle Heritage will follow a Site-specific Health and Safety Plan (HASP), proper field monitoring (trenching techniques, placement of monitors, etc.), and OSHA Health and Safety (training, medical monitoring, briefings, etc.) procedures that apply to the project. All archaeological monitoring personnel will follow OSHA requirements for field work and will be OSHA 40-hour HAZWOPER certified.

5.0 PROJECT MANAGEMENT

If requested, the Chronicle Heritage archaeological team will meet with the EPA, SHPO, the remediation project team, and the remediation contractor prior to the start of debris removal/excavation work to review the cultural resource monitoring procedures. While on-Site, the remediation project team will be verbally informed of the monitoring work and observations on a daily basis. Following is the list of parties/agencies involved and their contact information.

Project Coordinator:

Geosyntec Consultants
Dave Himmelheber
1750 American Blvd
609-895-1400

Suite 200 <u>dhimmelheber@geosyntec.com</u>

Pennington, New Jersey 08534

Project Administrator:

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Clinton, NJ 08809 wjlee@demaximis.com

Engineering Consultant:

Geosyntec Consultants Dave Himmelheber 1750 American Blvd 609-895-1400

Suite 200 <u>dhimmelheber@geosyntec.com</u>

Pennington, New Jersey 08534

Archaeological Consultant:

Chronicle Heritage Mark Steinback, Office Principal

2390 Clinton St 716-909-6114 (Cell) Buffalo, New York 14227 716-821-1650 (Office)

msteinback@chronicleheritage.com

Owner's Representative:

GZA GeoEnvironmental, Inc. Stephen Raymond 5 Commerce Park North, Suite 201 603-494-418

Bedford, NH 03110 stephen.raymond@gza.com

Reviewers:

United States Environmental Protection Agency Victoria Sacks

Region 2 212-637-4297

290 Broadway

New York, New York 10007-1866

New York State Office of Parks, Recreation, Timothy Lloyd and Historic Preservation 518-268-2175

Peebles Island Timothy.lloyd@parks.ny.gov

Cohoes, New York 12047

EPA Archaeological Contractor:

Jacobs Engineering Eric Burant

1610 N 2nd Street Senior Archaeologist

Suite 201 603-235-1223

Milwaukee, WI 53212 <u>Eric.Burant@jacobs.com</u>

Remediation Contractor:

TBD

NYC Office of the Chief Medical Examiner

421 East 26th Street New York, New York 10016 (212) 447-2030 Bradley Adams, Forensic Anthropologist

New York City Police Department

76th Precinct 191 Union St, Brooklyn, New York 11231 (718) 834-3211

78th Precinct 65 6th Ave, Brooklyn, New York 11217 (718) 636-6411

5.1 Timeline

TBD

5.2 Resources

Field work will be conducted by Chronicle Heritage archaeological monitors under the direction of or in coordination with the Chronicle Heritage archaeological principal investigator. Additional archaeological monitors or archaeological monitoring assistants may be needed in some cases. Chronicle Heritage will supply all non-mechanical field equipment (shovels, rakes, sifting screens, camera, etc.) necessary for the archaeological monitoring. This does not include excavation machinery.

5.3 Project Coordination

- The remediation project team is responsible for coordinating with the archaeological consultant and remediation contractor;
- The remediation project team is responsible for reporting and coordinating with the EPA;
- The EPA, in consultation with SHPO, will make final decisions on the monitoring process and any determinations for the final disposition of artifacts and objects of local interest.
- The EPA will be responsible for conducting coordination and consulting with the SHPO, Tribal Nations, and the public, as needed;
- The EPA will coordinate with SHPO to develop Site-specific monitoring plans, preservation plans, avoidance plans, or other investigations, as needed, for portions of the project

where sub-surface disturbance or other potential adverse effects to historic properties will occur.

6.0 REFERENCES

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2016a Area of Potential Effect & Bulkhead Materials/Existing Data Map Books

2016b Identification and Historical Assessment of Targets 37a, 37b, 37c and 39, Located in the 6th Street and Targets 31 and 31b, Located in Turning Basin 4, of Gowanus Canal. Prepared by Jason Flatt and Michael Audin.

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Gregory Dietrich Preservation Consulting

Hunter Research

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Assessment for the Gowanus Canal, Borough of Brooklyn, Kings County, New York in
Connection with the Proposed Ecosystem Restoration Study. Prepared for the US Army
Corps of Engineers, New York District by Hunter Research, Raber Associates, and Northern
Ecological Associates, Inc.

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McVarish, Doug C.

2010 *Gowanus Preliminary Bulkhead Study.* Prepared for HDR, Inc. and the EPA by John Milner Associates, Inc. in association with Dolan Research, Inc.

New York Archaeological Council, Standards Committee

- 1994 Standards for Cultural Resource Investigations and the Curation of Archaeological Collections in New York State
- 2000 Cultural Resource Standards Handbook: Guidance for Understanding and Applying The New York State Standards For Cultural Resource Investigations.

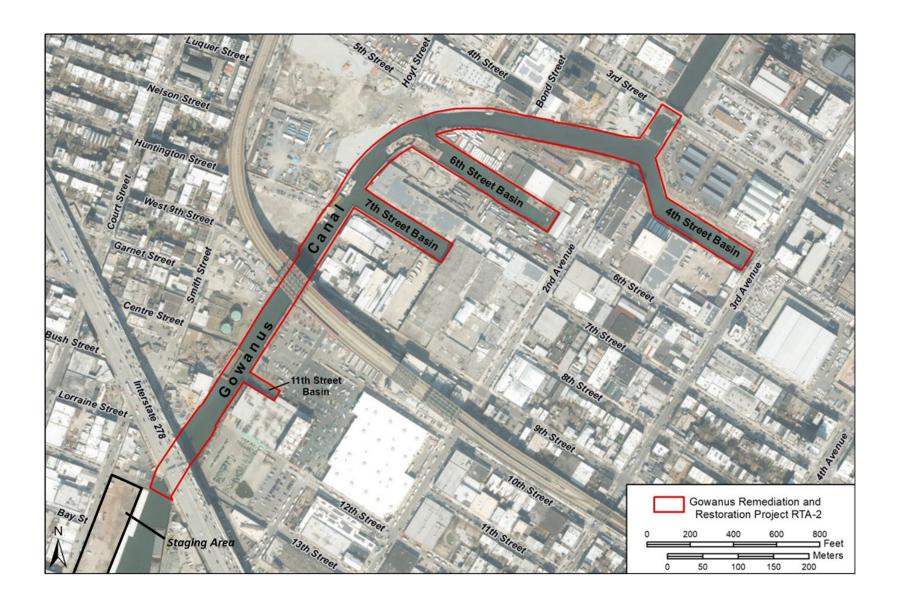
2002 Guidelines for the use of Archaeological Monitoring as an Alternative to Other Field Techniques. Adopted by the NYS Archaeological Council.

United States Secretary of the Interior

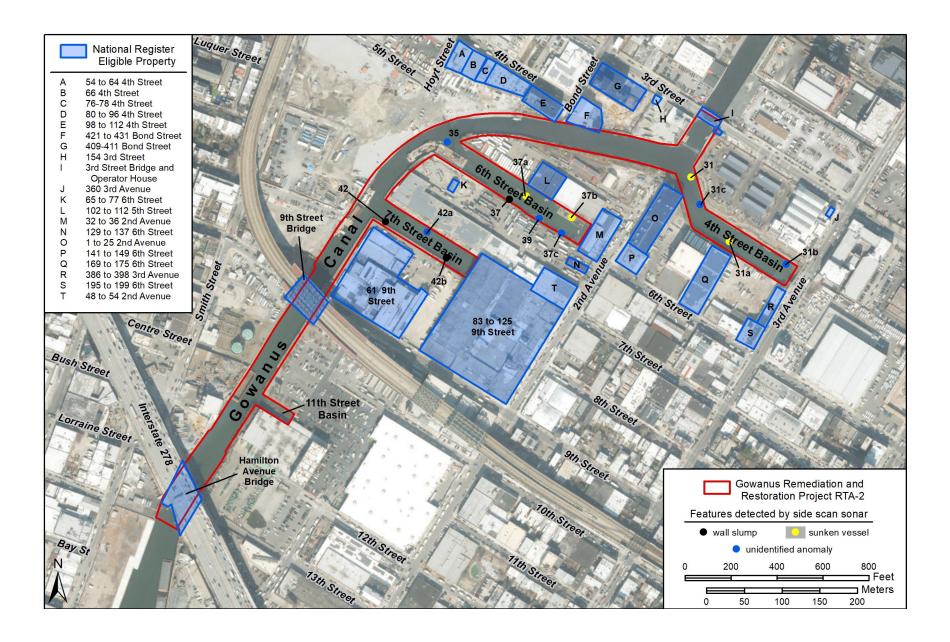
1983 Standards and Guidelines for Archaeology and Historic Preservation; as amended.

ATTACHMENT 1

RTA2 APE MAP



ATTACHMENT 2 CULTURAL RESOURCE MAP



APPENDIX A

HUMAN REMAINS DISCOVERY PROTOCOL (AUGUST 2018)

New York Office of Parks, Recreation and Historic Preservation/ State Historic Preservation Office

Human Remains Policy

In the event that suspected human remains are encountered during construction, the State Historic Preservation Office requires that the following protocol is implemented:

- At all times human remains must be treated with the utmost dignity and respect.
 Should human remains be encountered work in the general area of the discovery will stop immediately and the location will immediately be secured and protected from damage and disturbance.
- Human remains or associated artifacts will be left in place and not disturbed. No skeletal remains or materials associated with the remains will be collected or removed until appropriate consultation has taken place and a plan of action has been developed.
- The county coroner and local law enforcement as well as the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) and the involved agency will be notified immediately. The coroner and local law enforcement will make the official ruling on the nature of the remains, being either forensic or archeological. If the remains are archeological in nature, a bioarchaeologist will confirm the identification as human.
- If human remains are determined to be Native American, the remains will be left in place and protected from further disturbance until a plan for their protection or removal can be generated. The involved agency will consult OPRHP and appropriate Native American groups to determine a plan of action that is consistent with the Native American Graves Protection and Repatriation Act (NAGPRA)guidance.
- If human remains are determined to be Euro-American, the remains will be left in place and protected from further disturbance until a plan for their avoidance or removal can be generated. Consultation with the OPRHP